

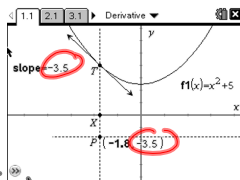
3.1 Derivative as a function

Derivative - slope of tangent
~~is~~ derivative is a number

Drag point X. What do you notice about point P?

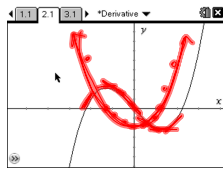
y coord of P is slope of tan
y is double x
P stays on the line $y=2x$
X & P meet at the origin

slope formula tells us slopes of all the tan lines
Derivative (function)



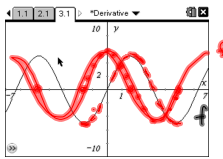
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sketch the derivative



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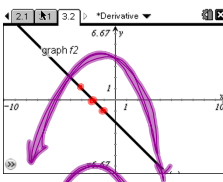
sketch the derivative



$f(x) = \sin x$
 $f'(x) = \cos x$
derivative
 $\frac{d}{dx} \sin x = \cos x$

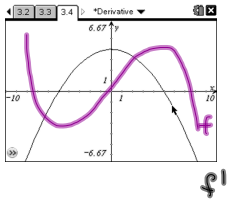
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given the derivative, sketch a possible graph of f



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given the derivative, sketch a possible graph of f



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